

Key Behavioral Indicators for Explosives Detection Canines



Red Flags

- Hesitant or hypervigilant in unfamiliar environments
- Requires time and/or encouragement to recover from a startle
- Avoids or cautiously approaches novel and dynamic objects
- Needs encouragement to remain engaged in search
- Abandons pursuit of toy reward when faced with obstacles and easily relinquishes it in absence of handler input or alternative reinforcer (i.e., opportunity to continue searching)
- Arousal while working is too high (frantic, heavy panting, vocalizing) or too low (slow, disengaged, wandering instead of actively searching)

Green Flags

- Minor reaction and quick recovery (seconds) when startled
- Moves past or willingly investigates novel/dynamic objects
- Comfortable navigating stairs and elevated surfaces
- Self-motivated and engaged while searching
- Strong physical interaction with toy reward, independent of handler feedback
- Mild to moderate levels of arousal while searching (alert and energetic but not frantic, self-regulates when in odor)



References/resources

- Lazarowski et al. (2020). Selecting dogs for explosives detection: Behavioral characteristics. *Front. Vet. Sci.*, 7, 597.
- Lazarowski et al. (2023). Longitudinal stability of detection dog behavioral assessment: a follow-up study of long-term working success. *Appl. Anim. Behav. Sci.*, 268, 106082.



Does sex matter?

- Males tend to be more commonly procured for EDD roles, but sex differences in behavioral traits are not consistent across populations and account for only a portion of variability in performance.
- Behavioral traits are far more important determinants of success than sex alone.



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